



National Institute for Occupational
Safety and Health
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HETA 2003-0316

Mr. Page Duppsstadt
United States Department of Homeland Security
601 South 12th Street
TSA-17
Arlington, Virginia 22202

Dear Mr. Duppsstadt:

I am writing you in response to your request to the National Institute for Occupational Safety and Health (NIOSH) for technical assistance. This request was received by NIOSH on July 11, 2003, and concerns an assessment of the risk of bloodborne pathogen (BBP) transmission to the approximately 50,000 employees of the Transportation Security Administration (TSA) who are engaged in the screening of airline passengers and their luggage at airports across the United States.

In response to your HHE request, I had several conversations with you by electronic mail and over the telephone. I also conducted a site visit to the Greater Cincinnati / Northern Kentucky International Airport (CVG) on October 16, 2003. At that time I spoke with TSA management representatives and TSA employees, and also had an opportunity to view the work practices of several security screeners and baggage inspectors during the morning and afternoon shifts.

This letter will summarize the results of the NIOSH site visit to CVG and will also address the questions posed in your request. This letter represents the final report for this request.

Findings

According to information you provided during our telephone conversations, TSA provides staffing to over 440 airports throughout the United States. At the time of your request, approximately 45 – 55,000 people were employed by TSA as airport security screeners working at passenger and carry-on baggage checkpoints, and as airport baggage inspectors within checked baggage screening areas. Approximately 5 million pieces of baggage undergo inspection on a weekly basis at airports in the United States.

Security screeners are responsible for identifying explosives and other contraband items that are in the possession of airline passengers by performing “pat down” searches of persons selected for random security checks and by conducting physical inspections of opened carry-on baggage. Airport baggage inspectors who work in checked baggage screening areas conduct physical searches of checked baggage for the presence of explosives. Neither security screeners nor baggage inspectors have been trained, equipped, or designated as first aid providers. It is the

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stated policy of the TSA that their employees are responsible solely for the task of providing airline passenger security. Should a screener respond to a person in medical distress, they would be doing so in the capacity of a “Good Samaritan.” Any exposure to blood or body fluids that might occur while providing first aid to airline passengers or fellow employees would not fall within their official duties.

While performing “pat down” searches and physical inspections of baggage, there have been instances of TSA employees who have sustained puncture wounds and cuts. Although an exact accounting of injuries is not available, information that you provided indicated that during the 4 months prior to your request, slightly more than 3500 claims for job-related injuries had been submitted by TSA security screeners and baggage handlers to the Office of Workers’ Compensation Programs (OWCP). Of these approximately 3500 injuries, 70 were classified as claims for cuts or puncture wounds (of all types). Of the 70 claims for cuts or puncture wounds, 15 were for puncture wounds due to needles, not otherwise specified. These needles might include sewing and knitting needles, hypodermic or insulin needles, lancets, etc. The OWCP database did not include information as to whether the needles involved in these incidents were used hypodermic or insulin needles (or other needles posing a potential BBP risk). You noted that although workers may wear latex or nitrile gloves, these do not afford the wearer significant protection from the potential aforementioned injuries.

Site Visit

In my discussions with TSA workers at CVG, both security screeners and baggage inspectors stressed the need for searches of airline passengers and their luggage to be conducted quickly to facilitate the on-time departure of flights. The imperative to conduct a search in such a way as to not compromise the safety of the TSA employee was, however, considered by TSA managers and employees at CVG to supersede the need for rapid searches. Current TSA guidelines for conducting searches include: 1) security screeners asking airline passengers about the contents of their pockets and their carry-on luggage; 2) conducting “pat down” searches using primarily the fingertips and not inserting hands into an airline passenger’s pockets without first feeling the outside of the pocket; and 3) never inserting hands into a piece of luggage or an inner bag of the luggage without first visualizing the contents (that is, no “blind” searches). Nonetheless, TSA security screeners and baggage inspectors that I observed did not always conduct searches in such a way as to minimize the risk of inadvertent lacerations or puncture wounds (i.e., the guidelines noted above were not always followed).

On several occasions I witnessed “blind” hand sweeps of suitcase frames and insertion of hands into bags without adequate visualization of the contents. Although imaging devices provide security screeners and baggage inspectors with some indication of potential hazards within the bags or suitcases, clearly not all hazards can be fully visualized prior to the physical search. There remains a risk of injury from a variety of sources ranging from sharp objects in the baggage (e.g., jewelry pins, campaign buttons, safety pins, scissors, razor blades, knives) to the sharp edges of the baggage itself. It is apparent that “pat down” searches of airline passengers

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may also result in lacerations and puncture wounds even when such searches are preceded by a questioning of the passenger about whether such items are currently in their possession.

Discussion and Conclusions

BBP include hepatitis B virus (HBV), hepatitis C virus (HCV), and human immunodeficiency virus (HIV). Percutaneous injuries (needlesticks, puncture wounds, or cuts) from contaminated sources are among the most common modes of occupational transmission of BBP viruses. Blood, body fluids containing visible blood, or other potentially infectious materials (OPIM) represent sources of contamination. Feces, nasal secretions, saliva, sputum, sweat, tears, urine, and vomitus are not considered potentially infectious unless they contain blood, and the risk for transmission of HBV, HCV, and HIV infection from these fluids and materials is extremely low.

The Bloodborne Pathogens standard of the Occupational Safety and Health Administration (OSHA) is designed to address the broad issue of BBP transmission from occupational exposures to blood and OPIM and is not meant to exclusively cover employees in health care settings. Thus, TSA employees could theoretically be covered under the standard depending on the nature of their job duties and their risk of exposure to BBP. Based on the information currently available, however, I do not believe that TSA employees have a reasonable anticipation of occupational exposure to HBV, HCV, or HIV. In the course of the routine performance of their duties, TSA employees screen an extremely large number of bags on a weekly basis relative to the reported number of percutaneous injuries. Furthermore, of the small number of percutaneous injuries sustained by TSA employees, an even smaller number of cuts or puncture wounds result from used (i.e., possibly contaminated) razor cartridges or medical devices (e.g., hypodermic or insulin needles) that may pose a potential BBP exposure risk. Thus, the overall risk of occupational exposure to BBP is extremely low among TSA employees.

In non-health care settings, any employee who may be expected to have exposure to BBP is covered by the standard. For example, police and firefighters often serve as emergency medical personnel and are therefore defined as health-care personnel for the purposes of enforcement of the standard. In addition, any employee who has been designated to provide first aid or medical assistance as part of his or her job duties is also covered by the Bloodborne Pathogens standard. The standard applies because an individual who has been designated to provide first aid may reasonably expect to have an occupational exposure to blood or OPIM during the performance of their duties. Coverage under the standard is thus invoked when an employee is expected to render assistance as part of his or her job duties.

In the case of TSA employees, however, it does not appear reasonable to anticipate an occupational exposure to BBP from this route because they have not been identified as first aid providers. TSA employees are expected to fulfill the role of providing airline and airline passenger security. As stated above, any medical assistance that a TSA employee might render would be considered a “Good Samaritan” act. OSHA has specifically exempted “Good Samaritan” acts from coverage under the standard regardless of the particular type of injury involved.

In conclusion, based on the information that you provided, I do not believe that TSA security screeners and baggage inspectors have a reasonable anticipation of exposure to BBP during the routine performance of their duties under existing exposure conditions. Nonetheless, measures should be taken to further minimize injuries from sharp objects in general, as well as exposures to devices posing potential BBP exposure risks. The latex or nitrile gloves currently used by TSA employees do not prevent cuts or puncture wounds from occurring; rather they are intended to provide a barrier against skin contamination and they appear to be sufficient for that purpose.

Recommendations

TSA currently has a mechanism to track injuries through the OWCP database. I recommend expanding this database to more comprehensively capture and explicitly track potential exposures to BBP. The collected data should be analyzed in an ongoing manner by TSA management to help determine effectiveness of current work practices and education and training activities.

I also recommend strict adherence to the current guidelines for baggage inspection among all TSA employees. Contents of bags should be fully emptied (as necessary) to safeguard against “blind” hand sweeps or the insertion of hands into bags without adequate visualization of the contents. If necessary, screening of carry-on baggage may need to occur in areas where security screeners are given the opportunity to fully and properly visualize the contents of screened bags while at the same time ensuring the privacy of airline passengers.

Finally, all TSA employees should receive training concerning what to do in the event of a needlestick injury, a laceration, or a puncture wound. Specifically, employees must have ready access to appropriate first aid and should know to subsequently seek out medical attention from management-designated occupational health care providers. These health care providers must be prepared to treat and manage BBP-related exposures. Tetanus toxoid may be provided to workers following an injury; routine vaccination of all TSA employees with tetanus toxoid is probably unwarranted. Similarly, Hepatitis B toxoid and vaccination against Hepatitis B may be provided post-exposure to employees who are determined to have sustained a percutaneous injury from a needle or other sharp object contaminated with blood or OPIM.

This letter serves as a closeout of this project. If you have any additional questions or concerns, or if I may be of further assistance, please do not hesitate to contact me by telephone at (513) 841-4386. Please be advised that this letter represents my opinion only. For a legal interpretation and to ensure compliance with the Bloodborne Pathogens standard, I recommend contacting the U.S. Department of Labor, Directorate of Compliance Programs (OSHA), Room N-3119, 200 Constitution Avenue N.W., Washington, D.C. 20210. They may also be reached by telephone at (202) 693-2100 or by facsimile at (202) 693-1681.

Sincerely yours,

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cc:

bcc:
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